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Communications.

CARBOLIC ACID AS A POISON.

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Carbolic acid may now be fairly said to have passed the period of its probation, and to have taken its place among the standard articles of the materia medica. Although long known to chemists, it is only within a very few years that its valuable properties as an antiseptic, disinfectant, parasiticide, and caustic, have been recognized and understood by the medical profession. That it has rapidly come into general favor, the following brief enumeration of its principal uses will show: It is employed for embalming the bodies of the dead; for preserving anatomical specimens; for the treatment of primary syphilis, mucous tubercles, carbuncle, quinsy, diphtheria, and ulcerations of the cervix uteri; as a dressing for burns, fresh wounds, and fœtid, purulent sores; as a parasiticide and anti pruritic remedy in certain cutaneous affections; as a disinfectant for hospital wards, privies, sewers, and clothing; as a preventive of contagion in cases of typhus, cholera, the cattle plague, and other infectious diseases; and even as an internal remedy in obstinate vomiting, chronic diarrhœa, spasmodic asthma, phthisis pulmonalis, chronic bronchitis, and malignant fevers. Much undoubtedly remains to be learned, both in regard to its therapeutic virtues and the dangers arising from its misuse; yet time and the results of future investigations can only modify, not wholly destroy the popularity it has so quickly attained.

Like all other potent medicines, it is capable of acting as a poison. F. Crace Calvert, to whom is chiefly due the credit of having first brought this substance prominently into notice as a medicinal agent, says, (as quoted by Dr. Caldwell in the *Boston Medical and Surgical Journal* for July 2d, 1868), "The great advantage which carbolic acid possesses over all other antiseptics, is, that it cannot be used for any illegal purposes, as arsenic or corrosive sublimate may." It is difficult to understand the ground for this assertion. Several fatal cases of accidental poisoning by carbolic acid are already on record, and one not fatal has come under my own cognisance. Indeed, this poison seems not inferior in power and rapidity of action to oxalic acid, and hardly so to strychnine, while a much smaller quantity than of the former is required to produce a fatal result.

In view of these facts, I have thought that a consideration of the subject from a toxicological stand point, might be of some value to the profession. It certainly becomes us, who use as medicinal agents drugs potent for evil, to study well their nature and powers, that we may guard in every possible way, against the occurrence of accidents.

A full account of any substance, as a poison, would embrace a description of

1. Its physical and chemical properties.

2. The methods of separating it from organic mixtures as a preliminary to the application of chemical tests.

3. Its toxical effects upon the system, with the symptoms and post mortem appearances involved.

4. Its antidotes.

5. The medico-legal evidence of poisoning by its use.

This scheme I propose to follow, even at the risk of repeating, under the first division of the subject, much that has been said be-

fore. The drug is so new to the profession that it may not be necessary to offer an apology for doing what, in the case of a substance better known, would be simply a work of supererogation.

I. Physical and Chemical Properties.

Pure carbolic acid (H C_6 H_{50}) is found in commerce in two forms, a glacial or crystalline and a liquid form. Glacial carbolic acid is a colorless solid, of low specific gravity, consisting of broken acicular crystals, which melt at a temperature of 95° F., and become liquid on the addition of a small quantity of water. Liquid carbolic acid has a specific gravity of 1.065, is easily volatilized, and boils at a temperature of 359 F. When pure, it is colorless, but as usually seen, its color is a light pinkish-brown. Its odor resembles that of creasote, but is less penetrating and disagreeable. Its taste is hot and pungent. When brought in contact with the tissues of the body, it acts as a caustic, producing a white slough. Its vapor also powerfully attacks the mucous membrane of the eyes, nose, and lips.

Carbolic acid coagulates albumen, gluten, and caseine. It is called an acid, but it belongs more properly among the alcohols. It does not redden blue litmus paper, and the compounds it forms with bases, even those the most powerful, are unstable. With sulphuric acid it unites, forming a colligated acid. It forms with water a crystallizable hydrate, soluble in water and alcohol. Its compound with potassa, potassic carbolate, is a colorless crystallizable substance, easily decomposed by heat and the acids, which might possibly prove a valuable substitute for potassic hydrate as a caustic.

Carbolic acid dissolves in all proportions in alcohol, ether, glycerine, the fixed oils, and strong acetic acid. In regard to its behavior with water, authorities differ. My own observations lead me to the following conclusions:

1. With twenty times its weight of water (the minimum) carbolic acid forms a solution, or, more properly speaking, a permanent emulsion.

2. With twelve times its weight of water, it forms, on agitation, a temporary emulsion, which, for all practical purposes, is equivalent to a solution.

The taste of the aqueous preparations and of dilute solutions in certain other menstrua, is warm, and not unpleasant, while the odor is feeble. The impure acid, sold chiefly for disinfecting purposes, is of various degrees of strength and purity. Its color is dark, and its odor much more marked than that of the pure acid. It may be well, at this point, to state that several preparations of different strength have been sold in the market under the name of "saturated solution of carbolic acid." To avoid mistakes, it would be well for physicians, when prescribing the drug for medicinal purposes, to write for the pure acid, dictating the menstruum if a solution be required. Carbolic acid is known by several different names, as phenol,—more appropriate by far than the one it now generally bears—phenylic alcohol, phenylic acid, phenic acid, hydrate of phenyl, etc. It occurs in coal tar, associated with creasote, and the two have often been mistaken, the one for the other. Cresylic acid, a substance also found in coal tar, resembles carbolic acid in properties, and has been considered by some identical with it. Williamson regards it as a distinct compound, and gives its formula as H C_7 H_7 O.

Carbolic acid may be recognized by its odor, by its action on the animal tissues, by its behavior with water, and by the following chemical test:

A splinter of deal, dipped first into the acid, and then into strong nitric or hydrochloric acid, will become blue on drying.

II. Separation from Organic Mixtures.

The separation of carbolic acid from organic mixtures, as in the case of other destructible organic compounds, is always a difficult, and sometimes an impossible task.

The proper method of proceeding would be as follows: Cut up the solid portions of the mixture into fine pieces, add large proportion of warm, distilled water, and agitate with a glass rod; let the whole stand for several hours, with occasional stirrings; filter through fine paper, and distill, taking care that as the process is nearing completion, the heat be not great enough to clear the non-volatile or-

genic residue. It would be better to make use of a water-bath, by which means the danger of clearing away may be completely avoided. Add calcic chloride to the distillate, and re-distill after the manner of concentrating alcohol. By these means the acid may be obtained sufficiently pure for recognition. The greatest care and skill are requisite, and even with them, the experiment may fail, especially if all the poison had been absorbed into the circulation before death. If a portion has remained unabsorbed, its recognition is less difficult. All the customary precautions enjoined in such operations, should be observed.

III. Toxical Effects upon the System.

Carbolic acid operates as a poison both before and after its absorption into the circulation. Before absorption it acts as a caustic or simple irritant, according as the preparation employed is strong or weak. When pure, or in strong solution, it coagulates the albuminous portions of the tissues, thus preventing or retarding the process of absorption. The usual symptoms of corrosive poisoning attend this action. They are, however, less marked than with most other corrodents, owing partly to the fact that carbolic acid acts as a local sedative, in this way diminishing the pain, and partly to the speedy occurrence of general symptoms, which to a great extent, mark the local ones. Spasmodic stricture of the œsophagus is a common occurrence when the strong acid has been given per os. Owing to this fact vomiting is not likely to take place. Weak solutions produce no local effect except irritation; but as they are more rapidly and completely absorbed, the ultimate effect may be more dangerous.

After absorption the drug acts directly upon the nervous centres, causing headache, giddiness, trembling, convulsions, insensibility, stertorous breathing, contracted or dilated pupil, a rapid, intermittent pulse, excessive prostration and death. The surface of the body is usually pale, and bathed in cold perspiration. When the quantity taken is large, death may occur almost immediately from an overwhelming impression on the system, as in the case of oxalic and hydrocyanic acids. In auricles death seems due to a suspension of respiration from tonic spasm of the muscles concerned in the process, or from muscular exhaustion caused by a long continued and rapid succession of clonic spasms. A prominent symptom is the profound insensibility which comes on in a very short time after the ingestion of the poison. Where death does not result from the general action of the poison, it may occur after a time, from the severity of the local lesions. Carbolic acid is quickly absorbed, and quickly eliminated from the system. This fact is proved by the speedy occurrence of general symptoms after its administration, and the speedy recovery when the result is not fatal. The kidneys are the great agents of elimation, but there is good reason to believe that the skin, lungs, and intestinal mucous membrane may also take part in the process. A portion of the poison is undoubtedly destroyed in the system, and another portion eliminated unchanged.

Post-mortem Appearances. The local lesions discovered after death are such as we would naturally expect to find from the caustic and irritant action of the poison. The strong acid causes the mucous membrane of the mouth, œsophagus and stomach to become hard, white and corrugated. The corrugation results from the contraction of the muscles in the walls of these organs. The several evidences of inflammatory action in its various stages may be observed. Congestion of the cerebral and spinal meninges has been noticed in animals, but it is not a constant phenomenon. The lungs are often engorged, and the heart is sometimes empty and flabby, sometimes distended with blood. The kidneys may be much congested, and the bladder distended with urine. In confirmation and further elucidation of the statements here made, I subjoin below an abstract of several reported cases of poisoning with carbolic acid, and an account of some experiments on animals, performed for the purpose of gaining information on this subject.

Reports of Cases.

Case 1. The following account is given from memory, as the gentleman who has the notes of the case is now absent in Europe.

Miss A. L., a young lady, twenty years of age, was troubled exceedingly with ascarides, which, not content with their normal habitat, the rectum, kept migrating into the vagina, where they occasioned a distressing pruritus. Having tried, without avail, all the ordinary remedies, she took, on recommendation as a *dernier resort*, an enema of carbolic acid dissolved in glycerine. The amount taken was large. I think about 145 grains. Alarming symptoms came on almost immediately, and medical aid being near at hand, reached her in a few minutes. When first seen by the physician in attendance, she was in the act of falling from her seat to the floor. She rapidly became convulsed, delirious, and finally nearly or quite insensible. The surface was cold and moist, the pulse weak and flickering, pupils contracted and breathing stertorous. The case must inevitably have terminated fatally without the prompt and efficient treatment which it received. Free injections of milk were given, and the sphincter ani ruptured to facilitate the discharge of the liquid. In this way the rectum was thoroughly washed out in a short space of time. The constitutional symptoms were, at the same time, combatted by ammonia, camphor, and other diffusible stimulants. In about fifteen or twenty minutes a copious flow of limpid, colorless urine came on, which lasted several hours. The exact amount of urine passed was not ascertained, but it must have been enormous. Its odor was slight but peculiar, not that of carbolic acid, nor that of normal urine. No chemical examination was made. Under the treatment the patient soon began to amend, and when I first saw her, some two hours or more after the injection had been taken, she was reclining upon a sofa, with a flushed countenance, seeming very weak and in some pain, but perfectly conscious. A severe rectitis followed, which was readily controlled by appropriate treatment, and in a few days the patient was entirely recovered. It is well to remark that the ascarides were effectually destroyed.

[To be continued.]

—— Josh Billings says he has "seen some awful bad throte diseases completely cured in three days by simply jining a temperance society."

CASE OF DISLOCATION OF THE HIP—UNSUCCESSFUL ATTEMPT AT REDUCTION—SUBSEQUENT DEATH OF THE PATIENT, AND POST MORTEM.

By J. T. Reeve, M. D,
Of Appleton, Wis.

James Doran, Irish, aged 19, an employee on the line of the C. & N. W. R. R., was injured on the morning of Friday, Sept. 25th, 1868, in the following manner. Young Doran was by a sudden jar thrown from a hand car which he with several other men were propelling at an estimated rate of 12 miles per hour. At the time of the accident he was standing on the forward part of the car, working the lever and facing the rear, and fell over backward in the direction the car was moving, but when rescued was found lying between the rails with his head in the opposite direction, the car having passed over him as he lay thus between the rails, and having had its two rear wheels displaced from the track. It is believed that this displacement of the car wheels must have been occasioned by the force with which some part of the car struck the patient, as the jar causing the accident was occasioned by the dragging of a rope leading from the car, on which Doran was, to another car drawn by it. Underneath the car from which Doran was thrown, and which passed over him, there runs a cog-wheel, a part of the propelling machinery of the car, the lower part of which wheel by careful measurement was just 9 inches from the ground on which the patient was lying. When picked up he was perfectly rational and complained of little but pain in the hip. He was put on the car and conveyed on that and in the arms of his fellows to his home, a distance of some two miles, and one hour afterwards was seen by Drs. Graham and Stansbury, of this city, and very soon thereafter by the writer.

The patient was found to be bruised and scratched in several places, but giving no evidence of serious injury, except that there was a well marked dislocation of the right femur upwards and forwards upon the pubes, shown by shortening of the limb, by abduction, and outward rotation, and by a prominent tumor

above the pubes caused by the head of the bone, to be plainly seen as well as felt in its unnatural position. There was also found extending from the outer side of the knee of the injured limb, diagonally across, upward and inward to the perineum, the marks of hard pressure from the cog-wheel before mentioned—each cog having left a distinct impression. There was no evidence that any of the car wheels proper had touched the patient.

Chloroform was administered until the patient was profoundly anæsthetized, when the head of the bone was found to move with very great facility by gentle manipulation of the limb, and we congratulated ourselves with the prospect that its replacement would be a very easy task—but in this we were sadly mistaken as the result will show.

Reduction was first attempted by manipulation and gentle extension, the limb having been successively and repeatedly carried to its greatest states of both abduction and adduction with flexion and rotation both outwards and inwards.

Having full confidence of success by this method, we gave it a faithful and prolonged trial, but failing in all these efforts we next resorted to extension by means of the rope windlass,—the only appliance at hand—the patient meanwhile lying on the outer edge of a hard bed, the counter extending band being in a line with and above the patient while the extending band was continued in the line of the limb and below the level of the body. These efforts were also aided by means of a short band running beneath the injured limb and over the shoulder of the operator, and by such rotation and manipulation as was possible, in the hope thereby to disengage the head of the bone from the rim of the pelvis and cause it to glide into its socket.

Still meeting with failure, after having made as we thought all reasonable efforts, the patient was allowed to come out from under the influence of chloroform and was left until the afternoon of the same day, when further attempts to reduce the dislocation were made by ourselves and by Dr. BRUNSCHWEILER, also of this city, and by Dr. GUINAM, of Medina; but after long and repeated efforts by every method conceived by any of us to offer the least prospect of success, the extending and counter extending forces having been repeatedly raised in their relations and manipulation made in, seemingly, every conceivable position of the injured limb, we were reluctantly compelled to the conclusion that *we* could not reduce the dislocation, and after consultation we unanimously advised the friends to secure the services of some one of the leading surgeons of our larger cities and centres of surgical skill. To this advice the friends assented, agreeing to send either to Milwaukee or Chicago, the names of the prominent surgeons of those two cities being furnished them—but during the night and without farther consultation with us, a messenger was despatched to the neighboring city of Green Bay, who brought to the case Dr. H. O. CRANE, one of the leading surgeons of that city or part of the State.

The Dr. arrived early the next morning, about 24 hours after the occurrence of the accident, and was accompanied to the patient's house by Dr. GRAHAM and myself. Young Doran had taken some anodynes and had passed a comfortable night, but the injured region was somewhat swollen and inflamed, and very tender. Nevertheless the Doctor approached the case with the same confident expectation of reducing the dislocation, that we who had tried to do so, on the day before, had experienced, but after a long, patient, faithful effort, he met no better success than we had done, and as reluctantly abandoned the case.

Immediately after this effort a telegram was despatched to Milwaukee for either Drs. WOLCOTT or MARKS, which was responded to by Dr. MARKS, a surgeon of extensive experience and undoubted skill, who came on Sunday morning, 48 hours after the injury was received. The patient this day was found in even better condition than he was in on the day before, with less local tenderness or signs of inflammation, with a good pulse and without any increased swelling of the injured region. The Doctor was armed with pulleys and with a Jarvis' adjustor, neither of which instruments had heretofore been used, and both of which

after he had thoroughly tried manipulation &c., were resorted to, but with no better success than had accompanied previous efforts.

Disappointed in these efforts, the Doctor retired until Thursday the 1st day of October, when he re-appeared, accompanied by Dr. Wolcott, also of Milwaukee, for many years acknowledged to be the leading surgeon of the State, and during the war, the Surgeon-General of the same.

The patient's condition on this occasion was not as favorable as it had been on all previous occasions, there being more constitutional disturbance and more local inflammation with a considerable degree of effusion both around the injured region and extending down the limb. Still there was no great degree of tenderness and on the whole, considering the nature of the injury and the efforts previously made, there was a decidedly better condition than we could have anticipated.

The patient came under the influence of chloroform this time very easily and profoundly, and the confident expectation of all was, that in the hands of the two eminent gentlemen above named, there would this time be no failure; but after faithful and repeated efforts by manipulation and by the appliances heretofore mentioned—all without success—it was declared by Dr. Wolcott to be irreducible in which all present, including all of the resident surgeons named in connection with the first day's proceedings concurred.

On the morning of the next day, the 8th after the accident, the patient was found with extensive effusion around the injured region, with the whole limb cold and greatly swollen, with a very rapid, feeble pulse, and constant vomiting, in short, failing evidently and rapidly, and on the evening of the same day death occurred.

The most strenuous efforts were then made to secure a *post mortem*, which was finally granted, but not until so late an hour, that long before we were through with our examination the friends had assembled for the funeral.

The following is the result of the *post mortem*, made chiefly by Dr. Graham 34 hours after the death of the patient—Drs. Stansbury, Brunschweiler and the writer being present.

An incision 9½ inches in length was made on the inner side of the thigh and lower part of the abdomen, with incisions 6½ inches in length at right angles to this from its upper and lower extremities outwards. The skin and superficial fascia being then dissected off, we came to the deep fascia in which there were several openings, through one of which the head of the femur was found protruding. This fascia being carefully dissected off, and the effused fluids, of which the amount was very considerable, removed, the position of the parts was as follows: The head of the femur was found above the rim of the pelvis a little below the line of poupart's ligament, and pointing directly upwards—nearly in line with the inner edge of the acetabulum.

To the head was attached the whole of the ligamentum teres, which had been torn from its attachment to the acetabulum. The capsular and ilio femoral ligaments were also completely destroyed, there being left no particle of ligamentous union between the femur and the acetabulum.

The head of the bone was thrust between the nerve and the vessels—the nerve lying on the outer side, and the artery and vein on the inner side of the neck, closely encircling the same. The sartorius, the tensor vaginæ femoris and the pectineus muscles, which had been exposed by the dissection, being cut through and laid to one side, more than one half of both the adductors, longus and brevis were found to be torn loose from their pubic attachments, and these muscles were wholly detached from their insertion upon the femur, indeed the whole periosteum was torn loose from the inner side of the femur down nearly or quite to the middle of that bone, while below that point it could still be easily detached from the bone with the finger, and the muscles above named and the tissues generally were found in a softened condition, capable of being broken down between the thumb and fingers.

Pursuing the investigation farther, there was found to be a fracture of the upper and inner edge of the acetabulum, and also a fracture of the femur through the trochanteric

fossa, removing nearly all of the trochanter major and extending down on the shaft of the bone, to a point a little below the level of the trochanter minor, the section of bone thus removed being about three inches in length by perhaps one and one half inches in width at its widest part.

The trochanter minor was uninjured, and the attachments of the psoas magnus and iliacus intact, but these muscles came down to their insertion, not over the neck of the femur, but behind and to the inner side of the same, thus effectually preventing reduction by rotation internally, while the rectus was found equally to resist rotation externally.

This position of the psoas and iliacus muscles explains to us why, when on two or three occasions during life, the head was by forcible rotation thrown over the rim of the pelvis, apparently into the thyroid foramen, (from which position by the next movement it was expected it would slip into the acetabulum), it was suddenly, and to us then, incomprehensibly, found to be reposited in its first position above the pubes. We had simply, by this rotation, thrown the head or neck of the bone more directly and forcibly upon these muscles, farther movement in the same direction could have been made only by their rupture, and also by the rupture of the vessels which lay upon them. We understand now also why the reduction could not be accomplished by extension, because however far down the head might be drawn, still beneath it and between it and the acetabulum were these muscles. During life, on several occasions, especially under the use of the Jarvis' Adjustor, the head was brought as low or lower than the acetabulum, could it then have been brought beneath these muscles, the reduction would have been accomplished; but the rotation necessary to accomplish this could not have been made, and this dissection has also revealed to us, that could we have known the position of the vessels and nerve, any violent efforts at rotation would have been an exceedingly unpleasant thing to contemplate.

In concluding the post-mortem, the tendons of the psoas and iliacus were finally divided, and the head of the bone was replaced in its socket.

No other part of the body was examined.

Before ending this report we wish to call especial attention to the character and violence of the blow causing the dislocation. Exactly how this dislocating force was applied we can never know, but the force capable of thus stopping and dislodging from the track the car, of itself heavy and increased in weight, as it was, by the avoirdupois of six heavy men, must have been an immense one—an abundantly sufficient one to have produced all of the injuries revealed by the dissection.

In regard to the fracture, it seems difficult to understand how such a fracture could be occasioned, and in fact, almost, to believe that such a fracture could exist. It seems to us that it can only be explained by believing that the limb was so rotated outward by the dislocating force, that the trochanter was brought into the acetabulum, and that then the force directly upward was of such tremendous power as to have produced both of the fractures described, and possibly also the rupture of muscles and loosening of periosteum alluded to were caused at the same instant.

Crepitus was very rarely and indistinctly heard during life, but was thought to be detected on three separate occasions.

Remarkable Case of Homicidal Mania.

The Geneva journals announce a trial which is destined to create a great sensation in Switzerland The accused, a nurse, named Jeanneret, is charged with poisoning not fewer than nine different persons, whom she had within the space of six months been engaged to attend. The substances used were belladonna and atropine, its active principle; and to obtain them she simulated a partial blindness, for which they are employed as a remedy. The woman appears to have had a monomania of crime, as she neither robbed her victims, nor derived any benefit from their death; she is even said to have nursed them with great tenderness. She was at length detected by a French painter named B——, whose wife she had attended. Madame B——, after showing symptons of poisoning, recovered, when the accused, finding that she was suspected absconded. She was, however, subsequently traced and arrested so unexpectedly that she had no time to conceal the poisons she had in her possession, and all of which are in the hands of justice.

Medical Societies.

SAN FRANCISCO MEDICAL SOCIETY.

Aneurism in California.

In the meeting of the San Francisco Medical Society, on September 8th, 1868, the following discussion on Aneurism took place, reported in the *Pacific Med. and Surg. Journal*:

Dr. J. F. Morse read an interesting paper upon a case of aneurism, after which Dr. A. G Soule commenced the discussion of the causes of the frequency of aneurism in California by presenting a variety of statistics, as follows:

Since the establishment of the Health office in San Francisco, up to the present time, September 8th, 1868, a period of thirty-four months, there has been reported 119 deaths from aneurism, or a yearly average of forty-two. The average population of the city for that time being about 126,000, there would be one death from aneurism for each 3000 inhabitants.

For a period of nine years, from 1856 to 1864 inclusive, there were in New York city 243 deaths from aneurism, an annual rate of twenty-seven. Under the supposition that the average population of New York for the nine years was 720,000, there was one death from aneurism to every 27,000 inhabitants. These are the statistics for comparison which I have obtained. I regret that I have none of European cities, but hope that if any member has access to such, he will present them.

Having found the relative frequency of death from aneurism in San Francisco nine times greater than in New York city, our next inquiry is in relation to the cause of this great preponderance.

In the following list of occupations, the majority of the scattering cases followed various employments, the most recent being usually given. 'Longshoremen, 10; sailors, 8; laborers, 5; soldiers, 4; engineers, 3; miners, house painters, teamsters, hostlers, cooks, each, 2; baker, carpenter, cooper, drayman, fisherman farmer, gardener, marketman, hatter, housewife, each, 1 —the latter being the only woman of the entire number of cases.

From these records we may obtain a good idea of the class of men affected with aneurism. They have lived a rough, uncertain life, with no settled home or steady vocation; they have been tossed upon the sea of life and wrecked upon the shoals of disappointment. All were necessarily in our young city, remote from their native land. Thirty-five were Europeans, and but ten natives of the United States. Nearly all had "tried the mines," worked hard, lived in a rough, exposed manner, imbibed freely of the ardent, returned disappointed to the city, taken lodgings in the rickety habitations of the city front, and worked by the hour or by the day at heavy, laborious unsteady labor alongshore. Idle the most of the time, they indulged freely in drink, and when at work, stimulants were used to brace them up in their heavy labor. Many complained of rheumatism; many did not; a large proportion had suffered from syphilis; autopsies were made in all the cases, and degeneration of the arterial coats, atheromatous, fatty or calcareous, found.

According to Prof. Flint, it is a question whether aneurisms are ever developed from strains or over-exertion, but some of these cases dated their trouble from a strain or violent exertion, when something seemed to give way. In one case of this kind no disease of the artery was found. Why aneurisms are so much more common here than in New York city, which has a similar population, may depend upon the peculiar stimulus of the country, the desire to grow rich, the irregular bodily exertion, inducing the hardest labor for one hour and idleness the next.

Dr. Gibbons, Jr., presented some statistics, in addition to Dr. Soule's, showing the prevalence of aneurism in San Francisco as compared with other places.

Dr. Gibbons, Sr., after speaking of the extraordinary frrquency of aneurism in San Francisco, and of the difficulty of accounting for such frequency, said there was one circumstance to be considered—that the number of deaths reported from aneurism had largely increased since Dr. Soule took charge of the medical wards of the hospital, a result due to close investigation of cases. It had been his experience that at least half of the deaths from aneurism would have been attributed to other causes, had not autopsies been made. Very careful examination had made aneurisms appear more prevalent here in comparison with other places than is actually the fact. Of late years the proportion of deaths from this cause in England had greatly increased. In 1838–42 there was an annual average of but one death to 131,000 inhabitants—but one death in a population equal to that of San Francisco: now they have a death for each 52,000 people. Aneurisms were almost unknown in the South Western States and the Mississippi valley, while in Ireland they were common. It was a notable fact that so few occurred among women, only one of Dr. Soule's 50 cases being a woman.

Dr. Gibbons believed that Dr. Soule's explanation covered the whole ground. Irregular habits, violent and irregular exertion, excessive indulgence in drink, so common among sailors, 'longshoremen, and others, sufficiently account for the prevalence of the disease among us. He also believed that violent muscular effort or strain might give rise to aneurism.

Dr. Joseph Haine thought that a prominent cause was the peculiar excitement of Calfornia life. The same cause operated in Ireland, where aneurisms were prevalent. The Irish were in a continual broil. There was too, a probability that more careful examination for this disease is customary in California. He instanced a case in which it was supposed there was great hypertrophy of the heart. Not being fully satisfied, however, repeated examinations were made, and finally an aneurism detected.

Dr. J. P. Whitney said, in substance: It is generally conceded that the first step in the production of aneurism is a degeneration of the arterial coats—that this is their predisposing cause. There may, however, be a question of the truth of this proposition. It is not improbable that a strain may injure the artery, and this injury be the starting point of atheroma. It is a well known fact that Liston died of thoracic aneurism. He was considered the best oarsman in England, and attributed his disease to the violent exercise of rowing. What is more likely than that this may be the cause of aneurism in 'longshoremen, whose laborious occupation must continually exercise a strain upon the arterial system? The elastic coats of the arteries being kept upon the stretch, may lose their elasticity, and atheroma follow. Atheroma, fatty degeneration and calcification probably commence in the same manner. In my opinion, in a vast majority of cases atheroma is the primary lesion, and the other varieties follow according to constitutional tendencies. Our people perspire very little, and it is a proper question to ask, what will be the difference due to this circumstance, in the kind of atheromatous matter thrown out beneath the endangium—whether it will lead to hardening or softening. Will the inaction of the skin account for the peculiar nature of our aneurisms, which rarely present evidences of calcification. But three cases of aneurism in which calcification existed have come within my knowledge, and two of these had but just arrived in the country. There are many diseases of whose causes we know nothing, nor would a knowledge of them aid us. There are others whose causes we are acquainted with, and yet they give us no assistance in the treatment. But with aortic aneurisms it is entirely different. Since we cannot cure them, our only hope is to study them attentively, so that we may point out the predisposing and exciting causes which are to be avoided. Our attention has not only been *turned* to the study of the subject, but *forced* to it by the frequency of the disease. I have seen autopsies of four men who had fallen down suddenly and died. There had been no previous suspicion of such disease, yet a ruptured aneurism was found in each instance. All were laborers—three 'longshoremen. This certainly exhibits a frightful condition of affairs.

NEW YORK ACADEMY OF MEDICINE.

Anniversary Meeting.

The anniversary meeting of the New York Academy of Medicine took place on the evening of December 11th, at the College of Physicians and Surgeons, Fourth avenue and Twenty-third street, the President of the Academy, Dr. Alfred Post, presiding. The attendance was small for the occasion. The annual discourse was pronounced by Dr. Austin Flint, Sr., who announced as his subject, "The Science of Medicine considered in its Past, Present, and Future Aspects." The speaker, after remarking that man is the only creature on the earth who is capable of converting the experience of others to his own use, and of providing for the future by the instructions of the past, said that he did not wish for an instant to frighten his audience with the idea that he intended to consider the entire history of medicine from its earliest practice, and including all its collateral arts. On the contrary, he should confine himself to the consideration of the science of medicine proper as distinct from surgery, and should only pass in review a period of time covered by the memory of members of the profession now living. Assuming for his starting point the closing of the first quarter of the present century, the speaker proceeded to consider the discoveries which had been made, and the changes in practice which had been adopted since that time, illustrated by numerous examples in physiology, pathology, diagnosis, and therapeutics, up to the present time, and then proceeded to consider what further changes might occur in a corresponding period in the future. The lecture was listened to with much attention, and at its close the speaker was complimented with a round of applause and a vote of thanks, for the able and interesting paper, a copy of which was requested for the archives of the Association.

Editorial Department.

Periscope.

Transfusion.

Dr. Mader reports a case of transfusio sanguinis in the *Wiener Med. Wochenscrift*, No. 59, 1868. He had previously injected a solution of tartar emetic in a case of pneumonia without producing emesis; the patient being no longer able to swallow, and has frequently thrown in weak solutions of chloride of sodium, and carbonate of soda dissolved in distilled water for cases of cholera. The management was the same as in the transfusion with blood. For the latter he used a glass syringe armed with a "needle canula." A superficial vein was turgesced by pressure, the canula pushed in, and the syringe emptied. Sometimes, however, the canula did not get into the vein, and the liquid produced a tumefaction under the skin which rendered the spot useless for the operation at that time. He prefers this method to laying a vein bare, which latter is often followed by phlebitis, and the entrance of pus into the vein from the suppuratting wound. No subcutaneous puncture of a vein has yet had such consequences, and the operation appears less formidable to our patient. He used, in accordance with the opinions of all later authors, defibrinated blood, because it produces as much effect as when the fibrin is present, and frees us from the danger of injecting coagula. The blood was defibrinated in a graduated vessel, which stood in a water bath at the temperature of living blood, by means of a common wooden muddlar.

This had the disadvantage of causing too much foam, in consequence of which a considerable quantity of the blood was lost while being strained through linen. On this account a number of glass rods were used the next time, and the fibrin was separated just as well and without the foaming of the blood. The cylinder of the syringe was now warmed, the blood slowly poured in, and the piston set in and all air driven out; he has no fear of very minute bubbles of air which may get into the circulation. The fineness of the canula has the advantage that only a very small and entirely equable stream can take place. To prevent the accident before referred to he now introduced the separated canula, and only after he was certain that it had entered the vein, by the appearance of blood at its proximal orifice, did he attach the syringe, and throw in the blood.

The great trouble in the practice of transfusion is to get a supply of blood. On this account he recommends the trials in hospitals, on hopeless cases, of the old experiments with blood from the lower animals. We must not assume that the statements of Lower and Denis, on the innocuousness of animal blood transfused into human veins, are altogether untrue, especially as later experiments show that blood from one species of animals may be injected with good results into another species. In the preceding case the patient was anæmic, with enlarged spleen, copious epistaxis, and some signs of scorbutus. The diagnosis was not clearly made out, but a general break down of the blood was evident, and threatened speedy dissolution. Blood for transfusion was procured with difficulty, and only two ounces were thrown in the first time. He improved during four days, when an attack of epistaxis again reduced him. The next day six ounces were injected, and he again improved, the improvement beginning, as before, on the day after the operation. In a few days the spleen decreased in size; about a month later he was in a fair way to recover, though he had suffered a few attacks of epitaxis. The other treatment consisted of plugging the nares when his nose bled freely, the administration of the acids usually given for scorbutus, and later the use of iron. A. A. H.

Transfusion for Extreme Anæmia—Good Result.

W. Zaunschirn, surgeon in Allerheiligen, reports a successful case in *Wiener Med. Press*, No. 36, 1868.

Mrs. J. Eder, æt. 43 years; on the 31st of May had her twentieth labor; membranes ruptured, and severe uterine hæmorrhage for three hours previous to the child's birth. Dangerous anaemia. On June 29th, was compelled to omit the use of tonics, by the stomach, on account of a gastric catarrh, which in her feeble state had easily been produced by exposure to cold. Having given up all hope of saving the patient in which other physicians agreed with him, he concluded to make a last effort with transfusion. On July 12th made transfusion, as recommended by Diefenrach and Billroth, with defibrinated blood. Got 4 ounces, by measure, from her son, a strong man of 22 years, and in three injections introduced 2½ ounces. Notwithstanding the small amount used the result was astonishing. The symptons usually spoken of by authors as immediately following this operation: contraction of pupils, increased temperature of skin, etc., did *not* appear, but the general beneficial effect did

not permit him to await it long. Even in a few hours she said that she felt "much better;" dryness of throat ceased. as also buzzing in the ears. Moderate appetite returned, and she was no longer troubled by cardialgia and emesis after eating; diarrhœa improved without further treatment, sensorium cleared up, and depression of spirits was supplanted by newly awakened hope. On the 30th of July she was able to leave her room alone, and all junctions were in a proper state of activity.

Reviews and Book Notices.

NOTES ON BOOKS.

Among the most enterprising of our literary exchanges is the *Galaxy*, published by Sheldon & Co., New York. Its prospectus for 1869, is very rich and varied. At a heavy outlay it has secured the pens of Charles Reade, Mrs. Annie Edwards, and other popular British writers. Among the leading features for 1869 are the New Serials by Charles Reade and Mrs. Edwards; Richard Grant White's, Dr. Hammond's, and Eugene Benson's Articles; and the Series of Critical Articles on Living American Authors.

We have received from A. Winch. 505 Chestnut st., Philadelphia, a copy of the "*Old Franklin Almanac*" for 1869—an annual of very great worth and importance in the family. Its table of contents is varied, and comprises almost everything one will desire to know in connection with our domestic institutions and history, also much information in regard to the governments of the world. Price, 20 cts.

We have frequently commended to our readers the *American Agriculturist*, published monthly by Orange Judd, New York. If we did so every week it would not be oftener than it deserves. It is the greatest enemy we know of, of all sorts of quackery, pretension and humbug—and a capital paper for the farmer, large or small, for gardeners, and for the household. If any of our readers want a perfect illustration of progressive development, let him send the publisher 15 cts. for a copy of the November number, and he will find it on page 419. It out Darwin's Darwin! The money will be well invested, and the number will serve as a specimen.

Among the best of our exchanges as a Family Newspaper, is "The Methodist," published at 114 Nassau street, New York. It is an able, independent religious paper, devoted chiefly to the interests of the denomination whose name it bears. It commands the best writers of the denomination, and is one of the ablest religious papers published. $2.50 a year.

Turnbull & Burdock, of Baltimore, send us the first number of volume four of the *New Eclectic Magazine*. It presents a varied and interesting table of contents, comprising valuable selections, made with excellent taste, from Foreign and American magazines and papers. It is issued in very becoming style and dress. $4 per annum. We will furnish it and the Reporter for $8.00.

A Rational Treatise on the Trunkal Muscles, elucidating the Mechanical Cause of Chronic, Spinal, Pelvic, Abdominal, and Thoracic Affections; and of the Bronchial and other derangements incident to the Clerical, Legal, and Musical Professions; with the rationale of their Cure by Mechanical Support. By E. P. Banning, M. D. New York: Townsend & Adams. 1868. 1 vol, 8vo., pp. 352.

The readers of the Reporter need no introduction to Dr. Banning. They have heard him *bongré malgré*, speak through our pages repeatedly. They are acquainted with his views about the effects of muscular laxity; the nature of uterine displacements, and their results; the action of the trunkal muscles; and the divers balances, props, elevators, and braces, which he has devised to meet and counteract these various obliquities of nature.

Yet many of them will be glad to see these scattered articles collected with notable additions in one handsome volume, elegantly printed and illustrated, with the author himself—that is, his counterfeit presentment—looking at us opposite the title page. We may well judge so, since the author tells us in his preface, that he has received over *twelve hundred letters* from America and Europe, about his articles in this journal—a fact that speaks loudly, both of the interest excited by his communications, and the immense circulation of the Reporter among medical men. We may pardonably doubt if any other medical journal in the world would have circulated his views thus extensively among practitioners wide awake to the interests of their patients, and ready to seize on any sound and rational mode of relieving their sufferings.

For there is no doubt about the efficacy of these supports. Our own extensive correspondence proves it sufficiently. Not that they are unfailing. Nothing is so in the therapeutic world. This Dr. B. frankly and manfully confesses, and we should suspect him if he did not. He grants, (p. 148), that about one-fifth of the

whole treated by mechanical support alone do not find entire relief. But the remedy which cures four patients out of five, is a welcome boon to the therapeutic arsenal as it now is.

His plan is now fairly before the profession, to stand or to fall, not by what he or we or others say for or against it, but by what experience and time will demonstrate. In their hands it now remains.

An Inquiry into the Influence of Anthracite Fires upon Health; with remarks upon Artificial Moisture, and the best modes of Warming Houses. By George Derby. M. D. Second edition, enlarged. Boston: A. Williams & Co. 1868. 1 vol., 12mo., cloth, pp. 76. *Price*, 50 cents.

The subject of this little volume has at various times been urged upon our readers as one of great importance, and all whose attention has been aroused will welcome Dr. Derby's book as timely, and well predared. He brings the different kinds of heaters in the market to the tests of both theory and experiment, and draws some practical deductions of the greatest importance to public hygine. It deserves to be widely read, and carefully pondered.

Popular Encyclopedia and Universal Dictionary. Edited by L. Colange. Philadelphia: T. E. Zell. No. 1. A to Abro.

The advertisement on the cover informs us that "as a *Medical Dictionary*, this work will be complete, describing each disease minutely," and it was the medical portion of it to which we naturally turned. If this specimen is a fair sample of the work, it will serve exceedingly little to advance medical knowledge. There are only a few medical terms defined, and nearly every one of them is more or less incorrect. *Abrasion* is defined "an *ulceration* of the skin;" *Aberration* "a partial alienation of mind," (the word alone has no such meaning;)" *Abracadabra*, the charm of Sammonicus against intermittent fever, is not only wrongly displayed, one letter only being retrenched from each line, instead of two, but is said to be the name of a Syrian god, when all good authorities explain it as the mystical principle of Basilides; the definition of *Abdomen* is obscure, and in part contradictory; and of the Arabian physicians whose names should have appeared in this fasciculus, Abd el Letif, Abd el Rahman, Abenguefit, and others, not one is mentioned.

These defects throw doubts on the general accuracy of a work which, with more care, would be a useful production—doubts which are not dispelled by an examination of other articles. Take, for instance, that on Abelard. It is full of small errors. He was not born at *Palais*, but at *le Pallet;* he was not 40, but 39 years of age when he met Heloise, and at the time was certainly not "satiated with fame," as any reader of his life can see. No mention is made of his marriage with Heloise, which lends an entirely different interpretation to his subsequent actions, and is a serious omission; his oratory, the Paraclete, is said to have been at "Nogent," and as there are six Nogents in France, it would have been better to say Nogent-sur-Seine; of the writers on his life, the best and most recent, M. de Remusat, is not mentioned.

We have marked a number of other errors, such as *aa*, said to be *Teutonic* (what is that?) for *flowing water*, when it is Celtic; the separation of Ababde and Ababdeh as tribes, when they are mere variations of the same name; *Abiponians* given instead of Abipones; and a large number of omissions.

It is to be hoped that the publisher or editor will see that future numbers are not so defective in all these points, which, though small individually, make up the difference between a worse than useless and a really useful standard of popular reference.

Hospitals; British, French, and American. To which is appended a Glance at the British Islands, France, and America, Ethnological, Climatic, and General. By Edwin R. Maxson, M. D., Author of Practice of Medicine, etc. Philadelphia: Published for the Author. 1868. 1 vol., 12mo., pp. 122.

Dr. Maxson, whose name as an author is favorably known from his work on Practice, has here summed up the observations of a medical tour through Great Britain and France. It contains a large number of interesting facts, and will be found a useful guide to medical gentlemen visiting those countries.

Report of the Proceedings of the Association of Medical Superintendents of American Institutions for the Insane, at the Twenty-second Annual Meeting, 1868. Published by the Association. Harrisburg: 1868. 1 vol., 8vo., paper pp. 207.

The discussions here reported are full of interest for the general profession, all of whom have at times to deal with insanity, as well as for the alienist. They have regard to the treatment and condition of the insane, projects of ameliorating their condition by similar laws enacted in all the States, and for defining more clearly the position of physicians in cases of suspected aberration of mind.

Medical and Surgical Reporter.

PHILADELPHIA, DECEMBER 19, 1868.

S. W. BUTLER, M. D., & D. G. BRINTON, M. D., *Editors.*

☞ Medical Society and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc. etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

REPORT OF SURGEON-GENERAL, U. S. A.

This valuable document has reached us, and is, as usual, replete with interesting statistical information of the army during the last fiscal year (July 1, 1867, to July 30, 1868.) During this time the average mean strength of the army was 45,257 white, and 4,774 colored troops.

For the *white troops*, the total number of cases of all kinds reported under treatment was one hundred and thirty one thousand five hundred and eighty-one (131,581), or two thousand nine hundred and eight (2908) per thousand of strength—nearly three on the sick report during the year for each man. The deaths were thirty per thousand of strength, from both accident and disease.

For the *colored troops*, the whole number of cases of all kinds treated was fourteen thousand six hundred and sixteen (14,616); being at the rate of three thousand and sixty-one (3061) per thousand of strength, or three cases of sickness for each man.

The mortality among them was greater than among the white troops, reaching as high as 56 per thousand of strength. Omitting cholera and yellow fever cases from both colors, the white troops return thirteen deaths per thousand from disease, and the colored twenty-seven per thousand.

The medical museum at Washington is mentioned as increasing rapidly. A large number of specimens have been added to all its departments during the last year, and we can state from our own observation, during a late visit, that it is, already, the most interesting and instructive collection of its kind in the world. We concede superiority to none whatever. Under the efficient management of Dr. GEO. A. OTIS, U. S. A., in the surgical, and Dr. J. J. WOODWARD, U. S. A., in the medical department it is rapidly assuming proportions, and acquiring a wide scientific value that will render Washington the Mecca of military surgeons the world over.

Within the last year an anatomical and ethnological section has been added which will have the greatest interest for anthropologists. Especially the red race of America, in many respects the most interesting of all the races, has been recommended to army medical officers located in the west, as peculiarly worthy their attention. A large number of typical crania of the aborigines, some of remarkable form and in excellent preservation, from the mounds has been added, and also a collection of 187 specimens, ancient and modern, of Indian weapons and utensils. We may be permitted to state here that a large proportion of these relics are due to the intelligent endeavors of Dr. A. I. COMFORT, U. S. A., at present stationed among the Dakotas.

The Surgeon-General has also recommended in a recent circular that surgeons in our western armies should inquire carefully into the therapeutic means employed by the natives, a recommendation which none will consider superfluous, when they remember that such valuable drugs as cinchona, ipecacuanha, guaicum, and many others, were first brought to our notice by the natives.

The medical and surgical history of the war is in a forward state of preparation. To illustrate the injuries of the head and trunk for future publication, there has been completed during the year, eight chromo-lithographs, eight lithographs and three diagrams. There has also been prepared during the year one hundred and twenty-two wood-cuts, to be intercalated in the text descriptive of the various classes of injuries and operations. Five hundred pages of manuscript are in readiness for the printer, and a large amount of the statistical material is in such state of

forwardness that it can be made ready for the press at a few weeks' notice.

The Report as a whole gives us every reason to congratulate the nation on having such an efficient officer at the head of this bureau of the War Department, and that officer on having such zealous and intelligent subordinates to carry out his plans.

Notes and Comments.

Banning's Braces, etc.

We are glad that Dr. E. P. Banning, of New York, has yielded to the advice and wishes of many of the members of the profession, and materially reduced the price of his Braces, and other apparatus, for weakness, deformity, etc. This apparatus has always seemed to us commendable for its lightness, simplicity, and as being founded on sound philosophical and physiological principles. Many of our readers have made use of it, and are able to speak of its merits or demerits in their hands. At the reduced price, we doubt not that the demand for the instruments will be greatly increased, and its benefits to the afflicted thus extended.

The Detroit Medical School.

The State authorities, by their course toward the Medical Department of the University of Michigan, are keeping that university in such a constant turmoil and excitement, that some of the profession are disgusted with it, and it looks as if the regular profession might yet withdraw from all connection with it. They certainly will, if the policy is pursued of forcing irregular practitioners into positions in the institution.

This unsettled and uneasy feeling, in connection with the medical teaching in that State, has probably led to the organization of the Detroit School of Medicine, announced in our columns. It has announced a very able faculty, and we have no doubt will do its full share of the medical teaching of that section of the country.

Of Doubtful Propriety.

A correspondent calls our attention to the pamphlet advertisement of Clark's patented "Nekrosozoic or Embalming Fluid," which contains letters in the nature of certificates from several distinguished medical men of New York. Except on the ground that they were not aware of what use would be made of their names, it is difficult to see how this is reconcileable with the Code of Ethics. This is particularly the case, as one of them confesses, that the process is a secret one, and unknown even to himself.

Strangury from Santonin.

A medical friend states that he has in two instances observed strangury from moderate doses of santonine,—6 grains in two days. In one case the child was five, in the other three and a half years of age. He inquires whether other practitioners have noted the same toxic symptoms. We believe it was not one of those mentioned by Rose, of Berlin, in his experiments with this drug.

Dr. Meigs' Introductory Address.

We beg readers to take note, that the first edition of the above address is *exhausted*. If we receive orders enough, a *second edition* will be published in January.

Medical Officers.

In Vienna a commission on military sanitary reform has had quite a lengthy session. We wish our Austrian brethren all success.

It is pleasant to observe that the profession is pretty generally awakening to the necessity of combination for self defence. In Prussia we find numerously signed petitions against forced medical attendance, in America black lists of non-paying families; and ere long we hope to hear that our friends in the army and navy have succeeded in having legally swept away the old feudal prejudices in favor of the "fighting material." It is time for the republic to show a spirit of liberality toward *the noblest* of professions, when Austria is about to recognize its deservedly eminent position, in her military establishment.

Hybridity.

The principle is laid down by many scientific men, that crosses between distinct species prove inferior, and either are infertile, as in the familiar case of the mule, or degenerate and disappear in a limited number of generations; while, in the case of mere varieties, the crossing produces a progeny vitally superior to either progenitor. It will be readily seen what would be the bearing of such a law on the question of the unity of the human race. If the races of men are separate species, mongrel races ought to degenerate; while they ought to be hardy and potent if of a single species. Agassiz, in his "Journey in Brazil," strongly asserts that the numerous mongrel races between Spaniards, negroes, and Indians, are

far inferior in intelligence and moral qualities to the pure races. The same is asserted by DARWIN, who quotes HUMBOLDT to the same effect. Dr. LIVINGSTONE quotes a common saying in Africa, that "God made white men and negroes, but the devil made half-castes."

Testing Water for Organic Impurities.

Half fill a common water-bottle, cover its mouth with the hand, violently shake for a minute, and quickly apply to the nose. If nothing unpleasant is detected, tightly cork the bottle, set it in a warm place about the temperature of one's body for a couple or three days, and repeat the shaking, etc. Water of very bad quality may thus be recognized without the trouble and expense of analysis.

[☞ *Readers of the* REPORTER *are invited to send us copies of local Newspapers, and similar publications, from all parts of the country, which contain matters of interest to the profession. They will be thankfully received, and acknowledged under "Communications received."*]

Correspondence.

FOREIGN.

PARIS, 1868.

Subperiosteal Resection.

EDITORS MED. AND SURG. REPORTER:

Before the Medical Society of Lyons, M. OLLIER recently presented four patients upon whom had been practised subperiosteal resection of the elbow-joint. The first was a young girl, 13 years old, and the operation dated from ninety days. Resection had been made of all the inferior epiphysis of the humerus, to the extent of thirty millimetres, and of the superior extremities of the cubitus and radius. There had been reproduction of bone and complete cicatrization; the movements of flexion were entirely reëstablished, with the power of semi-extension and semi-supination.

The second operation dated from fifteen months; resection of four centimetres of the humerus; reproduction of the bone; the patient had been able to resume her duties as cook, and in spite of the occurrence of two attacks of arthritis, she could now execute extended movements of extension and supination.

A third patient, 24 years old, some months after resection of the articulation, presents complete cicatrization, perfect reproduction of the bones, and movements of flexion and extension, pronation and supination, nearly as extended as in the normal conditions.

The fourth had only just laid aside the plaster bandage, and the muscles were weak from inaction; nevertheless, it was evident that the bone had been reproduced, and movements could be executed to about the third of the normal extent.

In these cases M. OLLIER succeeded in preserving the mobility of the articulation. But he recommends the method in cases where a solid anchylosis is the most desirable result which can be hoped for, and, in this connection, urges the revival of an operation at present greatly neglected in France, a resection of the tibio-tarsal articulation. Multiple fractures of the inferior extremity of the tibia, with opening of the articulation, are generally regarded here as cases imperatively demanding amputation, on account of the multiplicity of accidents to which the patient is exposed during the suppuration of the wound, and the uncertainty of the result in regard to the subsequent capacity of the limb for function.

However, M. OLLIER has recently been successful in two cases where he practised resection the day following the accident, and, consequently, in advance of the establishment of inflammatory phenomena. In the first case twelve centimetres of the inferior extremity of the tibia were removed. The astragalus and the fibula (which was broken in three fragments) were left untouched. The fragments of the fibula were, however, ridden over each other, for the purpose of diminishing the length of the limb, and approaching the astragalus to the surface of section of the tibia. It was impossible to expect complete osseous regeneration, for the patient was fifty years old, and the periosteum, already deprived of its osteogenic properties, had not had time, since the accident, to become irritated for proliferation. However, a column of new bone tissue, four centimetres in length, began to grow from the upper fragment, and was continued by a fibrous tissue to a new piece of bone developed at the malleolus. In spite of the incompleteness of the regeneration, the foot was able to rest squarely on the plantar surface, and support the weight of the body as in a normal condition. The patient, in six months, was able to walk about all day long.

In the second case the resection was performed in both the tibia and fibula, and the malleoli were removed. The limb was diminished in length six centimetres, but became solidly united to the foot, so as to be of much more service

than a stump remaining after amputation. The patient has been able to execute slight movements of flexion and extension.

In these operations, M. Ollier preceded the resections by carefully detaching the periosteum with his instrument, specially adapted to the purpose. On account of the age of the patients, it could not be expected that this membrane would regenerate osseous tissue to repair the loss of substance of the limb; but it was able to regenerate fibrous and osseous masses, which, accumulating around the articulation, rendered it solid, and prevented lateral mobility. This solidity was also insured by the employment of an immovable plaster bandage during all the period of periosteal generation.

It is noticeable that the experiments and clinical facts of Ollier by no means sustain the old theory which regards the periosteum itself as the generator of bone by a process of secretion. In all cases a subperiosteal layer of medullary cells is preserved with the membrane itself, and the osseous tissue developed at their expense, as in the normal process of evolution. If this layer be not preserved, no bone is reproduced.

Perhaps the neglect of this circumstance is one of the reasons for the failure in the following case, where the operation was practised by M. Dittmar, in the province.

A baker, 49 years old, had by a fall fractured both the tibia and fibula, the former at the union of its lower and middle third, the latter in its upper portion. The fragments were extremely oblique and largely displaced; the upper projected under the skin, forward and inward; the lower, was directed upward and outward, and the reduction was difficult. From the day of the accident, the swelling was considerable; and soon a phlegmonous inflammation invaded the limb, and occasioned gangrene of the integuments, thus laying bare the superior fragment of the bone to the extent of three centimetres. As there appeared no tendency toward consolidation, a sub-periosteal resection was decided upon the 22d day after the accident.

A longitudinal incision of five centimetres was made on the internal face of the leg, and the soft parts and periosteum being detached carefully from the upper fragments of bone, were turned back like a cuff. The denuded portion of the tibia, 17 centimetres long, was then removed by a chain saw; the inferior fragment of the same size, was treated in the same manner, by enucleation of its periosteum, and resection. There was no hæmorrhage, and only a slight oozing of blood from the spongy tissue and the medullary canal. The wound was dressed with lint, and the limb placed in a wire gutter, lined with cotton wool.

The work of reparation was extremely rapid, and consolidation commenced the thirtieth day, and by the thirty-sixth, all the space between the fragments seemed to be filled up. By the sixty-sixth day, the arm was complete, and the limb possessed its normal rectitude, *but it remained shortened four centimetres, that is, just the length of the fragments of bone removed.*

The author of this observation considers that this result constitutes a strong case against M. Ollier. But it is easy to see that there is no opposition between the part, and thus quoted above from the practice of the latter surgeon. He never pretends that at the age of forty-nine, the periosteum can manufacture new bone sufficient to supply a loss of substance occasioned by a resection of the humerus, and his cases, like that of M. Dittmar, presented a notable shortening of the limb. But he claims that enough new tissue is formed, however irregularly, to accumulate around the resected surfaces, and insure the solidity of the limb, which is precisely what happened after Dittmar's operation, although he pretends that the preservation of the periosteum had not been of the slightest utility.

At the Imperial Society of Surgery, M. Ollier has recently communicated the favorable results of the employment of Malgaigne's metallic point, to prevent displacements in cases of fractured bones. He has modified the original idea of Malgaigne, and constructed the following apparatus. It is essentially composed of two vertical stems, united by a horizontal one, along which runs the metallic cord that is to press against the displaced surfaces. This can be inclined in all directions. The vertical stems themselves, which are solidly fixed to some species of gutter, can also be more or less inclined to its axis.

As an example of the inocuousness and efficacy of this forcible pressure, M. Ollier with a case of fracture of the middle portion of the femur, which, after three months treatment, presented no sign of consolidation. The two fragments were perfectly mobile upon each other, and could only be brought together by strong pressure on the upper fragment, which projected outward. The vastus externus muscle was not, however, perforated, but simply lacerated by the fragment of bone.

To treat this case, the surgeon first applied to the limb a solid starched bandage, containing

two layers of strong paste-board. An opening was then made in the casing, at the level of the fracture, the sharpened metallic rod driven into the upper fragment of bone, and by strong pressure, this fragment was solidly fixed against the lower piece.

The point remained in place a month; there was no appreciable inflammation, and when the apparatus was removed, the two fragments were found to be firmly united to each other.

Lefort and Chassaignac confirmed the views of M. Ollier in relation to the utility of this mode of treatment of ancient and indolent fractures. M. A.

DOMESTIC.

An Unusual Obstetrical Case. Cæsarean Section.

Editors Med. and Surg. Reporter:

Nov. 9th, 1868. Was called in consultation, in Clifton, near this place, with Dr. J. C. Brown, who gave the following history of Mrs. J. She had her last menstrual show about the last of May, 1867. The abdominal tumor enlarged regularly until March, 1868. In December, and again in January, she had considerable hemorrhage, but no pain or dilatation of os uteri whatever. She enjoyed pretty good health until last September, when she had an attack of enteric fever which lasted three weeks. She recovered from her fever, and got up and about. A few days after, she had one labor pain and a large discharge of fetid water per rectum, followed shortly by one foot of the fœtus. At this juncture I was called in consultation. She had no pain of any kind. We endeavored for five days to get up an action of the uterus with gum bougie, sponge, and the exhibition of ergot, all of which was useless. The neck of the uterus was small, and felt cartilaginous. The fistulous opening from uterus into the rectum, was four inches at least above the sphincter ani. In the mean time, the woman became hectic, poisoned with the gases of the decaying fœtus and secundines. In that situation death was inevitable, and the only hope was in an operation that would remove the cause of irritation and contamination of the system.

Accordingly, on Saturday, Nov. 14th, I performed the Cæsarean section, Dr. Brown giving the ether, and with some difficulty removed a fœtus of about eight months' development. The placenta had been dissolved and oozed away through the rectum. The fœtus presented one foot to neck of the uterus, and the other emerged at the anus, and was considerably adherent to the uterus in front. The incision, which was in the linea alba, and about six inches in length, was closed with interrupted sutures and plaster strips. Very little hæmorrhage. The woman rallied well from the operation, and gradually improved until noon of the following Friday, when she suddenly grew worse, and on Saturday morning she died.

We have no doubt, that if there had been an outlet for fluids per vaginam, she would have recovered. But as the uterus naturally contracted, the uterine portion of the fistulous opening settled below that of the rectum, so that the effused fluids found their way into the abdominal cavity with fatal effect. There was no autopsy.

B. G. Neal, M.D.

Columbus City, Iowa, Dec. 7, 1868.

Syphilitic Phimosis.

Editors Medical and Surgical Reporter:

In Vol. XIX., No. 6, of your valuable journal, I find an excellent method for dilating the prepuce in order to get at a chancre. I would state, however, that in the treatment of several cases of the kind, I did not find this necessary, and cured both local and general disease by the following course:

With a small glass penis syringe I injected under the prepuce, and as near the channel as possible, once daily, a solution of argenti nitras, gr. xl. ad f.℥j., taking care that the nozzle did not enter the urethra. At the same time I put the patient on a *mild* course of mercury in the usual way. The local treatment was never required longer than eight or ten days.

In my first case, the prepuce could not be retracted after about ten days' treatment, and, although no more pus came from under it, I feared mischief might be going on out of sight. I therefore slit up the prepuce on a director, having nitric acid ready to apply to the cut surfaces and chancres, but was agreeably surprised to find the chancres completely healed.

The constitutional treatment is continued for some weeks longer; in fact, I make it a rule to keep up a gentle course of mercury for at least a month in *every* case of syphilis where the chancre is of more than trifling size, and even then, if of a week's duration; Ricord, I believe, allows five days for absorption of the poison into the system. Of course, where mercury is contra-indicated by some other cause, potassii iodidum is used, and for a longer period. For over three years I have pursued this plan, and have had very little trouble from constitutional symptoms.

A. A. Hoehling, M. D.,

Philad., Pa. Surgeon U. S. Navy.

Dislocation of the Patella, Vertically, or upon its Long Axis.

Editors Medical and Surgical Reporter:

The following case of dislocation of the patella is reported on account of its singularity, and the peculiar manner of its reduction, as well as for the general importance of such cases, of which few are recorded.

Prof. Gross calls it a "singular accident, the very possibility of which was denied by nearly all surgeons until a recent period."

Prof. Hamilton in his work on fractures and dislocations, however, states that fifteen examples are recorded.

J. S., aged 19 years, a strong muscular man, on the morning of the 10th of April, was riding a colt which ran against the fence with him, while the limb was in a semi-flexed position. He received a direct blow upon the knee, causing the dislocation. I was at once summoned, and saw him about half an hour after the accident Found the limb perfectly straight, could be flexed, but not without causing severe pain.

The patella was nearly at a right angle to its natural position. The anterior surface of the patella was turned inwards, its posterior surface outwards, presenting its outer edge in a prominent hard ridge, somewhat obliquely to the outer side of the middle of the knee joint, causing intense suffering.

I at once resorted to the ordinary methods for reducing lateral dislocations of the patella, but without success. The patella remained wedged in its new position, the sub-condyloid fossa of the femur, so firmly that it seemed to defy the power of human hands to replace it. Finding my attempts at reduction unsuccessful, and causing severe pain to the patient, I sent a messenger for some ether. and requested the assistance of my friend, Dr. Wm. B. Erdman.

When, after his arrival, the patient had been fully brought under the influence of the anæsthetic, we flexed the thigh strongly upon the pelvis, and successively extended and flexed the leg upon the thigh, at the same time pressing powerfully against the lower edge of the patella from without, with the head of a door-key well wrapped, while an assistant pressed firmly with both thumbs against its upper edge, toward the external condyle, but without success. Hamilton states several cases in which this method seems to have been successful.

He then resorted to extreme flexion of the thigh on the pelvis, with a sudden and forcible flexion of the leg upon the thigh, when the bone sprung into its natural position with an audible snap, not a particle of force being applied to the patella at the time.

Both Dr. Erdman and myself, therefore, are of the opinion that the most essential process of a successful reduction of the dislocation are:

1st. To produce perfect relaxation by an anæsthetic. 2d. To flex the thigh strongly on the pelvis. 3d. To flex the leg suddenly and forcibly on the thigh, which of itself, without any pressure, will throw the patella out of the sub-condyloid fossa into the natural position.

The patient was advised to remain perfectly quiet for a few weeks, but he would not allow himself to be put under restraint, and in a week from the time of the accident, was engaged in his usual vocation,—a hired laborer on a farm. He has been pursuing his labors uninterruptedly up to this time, November 2d, 1868, without any pain or inconvenience.

Samuel R. Rittenhouse, M. D.
Reading, Bucks co, Pa.

Incised Wound of Knee-Joint: Recovery.

Editors Med. and Surg. Reporter:

E. C., a young man, aged about 23, in vigorous health and possessing a splendid constitution, was cutting hoop-holes, when the corner of the hatchet entered his right knee, just grazing the inner side of the patella. This happened December 24th, 1867.

27th. Was called on to visit him. Found him in a chill, complaining of extreme pain in the knee, which was dressed with a poultice. He stated that he had been doing well for the first day or two, but that being obliged to lie in an open shanty and help himself, and being in the way of other workingmen, an effort was made to convey him to more comfortable quarters, on the 26th, that in crossing a lake about three miles wide in an open boat, he was taken with a chill and had not been warm since. Found the wound pouting, looking very angry, knee much swollen.

It being impossible to treat him where he then was, I prescribed opium *pro re nata*, a saline cathartic, and to continue poultice.

28th. Arrived in town, considerably jaded; certainly no worse either locally or constitutionally. Continued treatment, it being now too late to change. Endeavored to impress forcibly on patient's mind the necessity of absolute rest of whole body, and especially of knee. Did not bind a splint underneath, because it would irritate, and he seemed intelligent enough to be trustworthy. Kept him well under the influence of opiates, his bowels soluble with salts,

and poultices continually hot, to knee. Did extremely well for about a week, and I was felicitating myself that I would have him off my hands in a few weeks, when I was greatly surprised one morning on paying my usual visit to find him very much worse in every respect. I at once accused him of having flexed the knee; this he strenuously denied, and that he had removed his covering, and fairly lied me out of it, and made me believe his lies. After his recovery he confessed to me that he had bent his knee three or four times the evening before he was taken worse in order to rest it, and for fear it would get stiff! Increased opiates so much that the druggist said I must be feeding him on opium, (I give the case mostly from memory and cannot tell how much he did take, but it was sufficient to keep him continually narcotized, and enabled to bear the pain.) R. pulv. doveri gr. v., calomel, gr. ii., every two hours, and continually nauseated with tart. ant. Other treatment about as before. I now deferred an operation from morning to noon, from noon to night, and from night to morning.

My desire was to enlarge the wound, and syringe the joint freely with tepid water, but could find no authority to do so in the works on surgery at my command, and no surgeon with whom I conferred would countenance such a proceeding, but all said, amputate.

After about three or four days, he certainly ceased growing worse, and after about a week more, began slowly to amend.

I find by reference to my note book that he was discharged February 22d, 1868, with almost perfect use of knee-joint. Examining him about a month later, I found the motion of the knee in no wise impaired except from a little weakness, and perhaps some slight thickening of the tissues.

Reflections. There is no reasoning against success; but if I were to have just such another case, I would slightly enlarge the wound, so as to give a free exit to the pus, and altered synovial fluid, and would assist the removal by injections of tepid water, perhaps medicated with morphine, for I do not believe that it is necessarily the air which so greatly injures an articulation, but it is confined air, and confined pus.

G. P. Bissell, M. D.

McMinnville, Oregon.

—— Dr. Moore, late Surgeon-General of the Confederate Army, has been elected Superintendent of the Eastern Lunatic Asylum of Richmond.

News and Miscellany.

Health of Students in France.

A report drawn up by Dr. Vernois, who had been directed by the Minister of Public Instruction to inquire into the state of health of the pupils in the various colleges in France, states that in those establishments the deaths are six to every 18,000 students, which is equivalent to one in 3,000, while, according to the official census, the average mortality of children between ten and fifteen years is somewhat over five per 1,000. This is a proof that the arrangements of the educational establishments are excellent in a sanitary point of view.

Patent Medicines in England.

Stamp duty was paid in the year ending March, 1868, on no less than 8,060,754 packets, boxes, etc., of medicines, selling at 1s., or more. The tax produced £62,556.

Flexible Sulphur.

By adding to pure sulphur a four-hundredth part of chlorine or iodine it becomes very soft, so that it may be spread in thin leaves as flexible as leaves of wax.

Vaginal Irritation.

Dr. Ludwig Fürst has used glycerine in three cases of vaginal irritation, with benefit.—(*Berliner Klin. Wochenschrift*, No. 30, 1868.)

Carbolic Acid.

It is stated by the colonial surgeon of Sierra Leone, that he finds carbolic acid superior to any other application for treating the foul ulcers connected with cases of leprosy. Some cases, absolutely unapproachable from the stench, have, after one or two dressings, become free from offensive odors. He also recommends a weak solution for sponging the skin, as an effectual safeguard against that insupportable pest of tropical climates, the sleepless, ever-voracious mosquito.

—— The new French silver is apparently an improvement on the old-fashioned German silver, and it is stated to be applicable to all the purposes to which ordinary commercial silver is applicable. It is composed of copper 56 per cent., nickel 40.64, tungsten 2.80, aluminum 0.56. It is a white, ductile, malleable, tenacious, sonorous alloy: its specific gravity is nine-tenths that of silver, its metallic lustre superior to that of silver, and its fusibility less, probably on account of the tungsten it contains.

—— "In this wreck of the powers," says Seguin, "one human, irresistible impulse remains: low as we find the idiot—far lower than the brute in regard to activity and intelligence—he has, like all the rest of the human race, *what no other animal possesses*, his hobby, his charm, his amulet, the external object toward which his human centrifugal power gravitates; and this, be it a broken piece of china, a thread, a rag, an unseizable ray of the sun, he will spend his life in admiring, kissing, catching, polishing or sucking as the case may be. Take away that amulet, the occupation of his life is gone."

—— *A Family Man* in New York city—very much of one, we should say—has recently been favored with triplets, all feminine, and he has named them Faith, Hope, and Charity. It is a great thing—even though in small packages—to have the leading Christian graces under one roof.

—— A cow in Troy yields fourteen and a half pounds of butter per week. She has borne twins for three years in succession. The last pair weighed 323 pounds when four weeks old.

Army and Navy News.

Navy News.

List of changes, &c., in the Medical Corps of the Navy, during the week ending December 12th, 1868.

Surgeon Sam'l T. Coues ordered to the U. S. S. Richmond.

Passed Assistant-Surgeon Edw'd Kershner detached from the Receiving Ship Vermont, and ordered to the "Richmond."

Assistant-Surgeon Samuel W. Latta detached from the Receiving Ship at Philadelphia, and ordered to the "Richmond."

Assistant-Surgeon Henry Stewart ordered to the Receiving Ship Vermont, New York.

Assistant-Surgeon Abel T. Price ordered to the Receiving Ship at Philadelphia.

Surgeon P. S. Wales ordered to the U. S. S. "Portsmouth."

Assistant-Surgeon Peter A. Callan detached from Navy Yard, Washington, and ordered to the U. S. S. "Portsmouth."

Assistant-Surgeon M. L. Ruth ordered to the Navy Yard, Washington, D. C.

Assistant-Surgeon P. P. Bielby ordered to the Naval Hospital, New York.

Acting Assistant-Surgeon T. W. Bennett detached from the U. S. S. Saco, and granted leave of absence prior to receiving an honorable discharge.

[Notices inserted in this column gratis, and are solicited from all parts of the country; Obituary Notices and Resolutions of Societies at ten cents per line, ten words to the line.]

MARRIED.

Cumnock—Nye.—At Middletown, Conn., Nov. 25, by Rev. Dr. Cummings, Professor Robert M'Lean Cumnock, Jr., of Evanston, Ill., and Miss Charlotte A. Nye, daughter of E. B. Nye, M. D., of Middletown.

Cunningham—Reynolds.—On the 3d inst., by the Rev. Joseph Painter, D. D., assisted by Rev. T. D. Ewing, Guy Cunningham, M. D., and Miss Sallie J. Reynolds, all of Kittanning, Pa.

Hon—Hardman.—On the 26th Nov., at Orleans, Orange co., Ind., Dr. Benton J. Hon and Miss Elizabeth T. Hardman.

Kitzmiller—Watson.—On the 1st inst., Dr. E. A. Kitzmiller, of Piqua, and Miss Minnie Watson, of Dayton, Ohio.

Satterlee—Suydam.—Dec. 9, at the Church of the Ascension, by the Rev. Geo. B. Reese, assisted by the Rev. Henry Y. Satterlee, Dr. Frank Le Roy Satterlee and Laura, daughter of Henry Suydam, Esq., all of New York.

Whitten—Flood.—In Clinton, Me., Nov. 26th, by Rev. Geo. G. Winslow, P. M. Whitten, M. D., and Miss Clara Flood, all of Clinton.

DIED.

Bair.—Nov. 27th, at Elizabeth, Pa., John B. Bair, M.D., aged 28 years.

Heilner.—At New Orleans, La., Dec. 1st, 1868, of consumption, Henry C. Heilner, M. D., formerly of Pennsylvania, late Resident Physician at the Quarantine Station, Lower Mississippi River, La., and during the war Acting Assistant Surgeon U. S. Army. "Pennsylvania had no more worthy son."

Rogers.—At Pittsburgh, Pa., on Monday afternoon, Dec. 7th, Mary Darragh, daughter of Dr. Julian and Margaret C. Rogers, aged 16 months and 28 days.

OBITUARY.

The well known entomologist, Dr. Ludwig Imhoff, died at Basle, September 18th.

ANSWERS TO CORRESPONDENTS.

Dr. C. H. H., of Ky.—"Is each number of the Compendium bound, or has it paper covers like the Reporter? If each number is not bound to itself, what would be the cost of both numbers for the present year, bound together in good style, and prepaid and sent to me by mail?" The Compendium is in paper covers. The two volumes neatly bound in half roan, will be sent post-paid to subscribers to the Reporter for $3.00; to non-subscribers for $3.50.

METEOROLOGY.

November,	30.	D. 1,	2,	3,	4,	5,	6.
Wind	S. W.	N. W.	W.	N. W.	N. E.	N. E.	N.
Weather	Clear.	Clear.	Clear. Spit Snow.	Clear.	Cl'dy. now.	Cl'dy. Rain.	Clear.
Depth Rain.					2-10	3-10	
Thermometer							
Minimum	29°	24°	20°	25°	22°	26°	24°
At 8, A. M.	37	31	30	34	31	34	35
At 12, M.	50	33	35	37	34	36	39
At 3, P. M.	50	33	35	36	34	35	40
Mean	41.50	30.25	30.	33.25	30.25	32.75	34.50
Barometer.							
At 12, M.	29.	29.5	29.9	30.2	30.	29.7	30.

Germantown, Pa. B. J. Leedom.